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REMARKS

Initially, Applicant appreciates the withdrawal of the previous grounds of rejection based upon the arguments presented. The Examiner has presented a double patenting rejection which will be addressed when claims have been indicated allowable.

Claims 1-4, 6, 8, 10, 14, 16-17, 19-27, 29, 31, 33, 37, 39-40 and 42-48 were rejected under 35 USC 102(e) as being anticipated by Florio et al. ("Florio"). Applicant respectfully traverses this rejection.

As the Examiner is well aware, in order for a reference to anticipate a claim, that reference must teach each element of the properly construed claim. Contrary to the Examiner's assertions, Florio does not deliver a pacing pulse to a given chamber, sense within that chamber and determine, based upon morphological characteristics whether the pacing pulse captures that chamber of the heart as in, e.g., claim 1. As such, the rejection is improper and must be withdrawn.

With respect to the Florio reference, the Examiner's attention is directed to FIGS. 3A – 3C and the accompanying description. The reference explains the use of the known prior art technique of generating a pacing pulse and noting the time until, in this case, a ventricular event is sensed. If it results because of capture, it happens within a given time window. If not, then there is a longer delay before the intrinsic depolarization. This type of capture detection was discussed extensively in Applicant's previous remarks, which are incorporated by reference. This type of evoked response measurement is the basis for Florio capture detection and is therefore distinct from the claimed invention, for the same reasons as previously established.

Florio does address a unique situation. That is, using a single sense electrode or channel to determine if capture occurs in two chambers. The example given is biventricular pacing. Pacing pulses are delivered to both the right and left ventricle. Using the above capture detection methodology would

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allow one to determine if capture fails in both ventricles or, if at least one ventricle captures. Because the waveforms are so similar (upon capture) the methodology would not distinguish between capturing in one ventricle (and not the other) versus capturing in both ventricles. Thus, Florio does teach using a morphological analysis to distinguish between capturing a single ventricle and capturing both ventricles. That said, Florio is unable to determine which ventricle captured. This is an explicit limitation of the Florio teachings.

At paragraph 64, the reference teaches that capture is still determined based upon the timing of a subsequently sensed response after a stimulation pulse. If capture is detected, then the IEGM is evaluated to determine if one or both ventricles were captured. That determination can indicate capture in both ventricles or a lack of capture in one, but cannot identify which chamber captured and which did not and no morphological analysis is not taught or implied to do so.

In the claimed invention, as in claim 1 for example, a pulse is delivered to a given chamber and that chamber is sensed for a signal. That signal is then subjected to a morphological analysis from which it may be determined whether capture occurred or not. Thus, the claimed invention may sense and detect with specificity in any single, any combination, or in all four chambers of the heart.

To reiterate, Florio does not use morphological analysis to determine whether capture occurs or not. Rather, when capture is known to occur, a signal is analyzed to determine if the capture signal represents one or two chambers but cannot distinguish between them.

The remaining claims are allowable for the same or similar reasons. The rejections presented under 35 USC 103(a) are likewise unsupportable and the additional references cited fail to remedy the deficiencies noted.

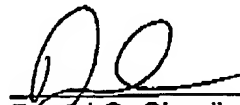
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As such, the present claims are in condition for allowance and notice of the same is requested. Should any issues remain outstanding, the Examiner is urged to telephone the undersigned to expedite prosecution.

Respectfully submitted,

Date:

1/30/06



Daniel G. Chapik
Reg. 43,424
Telephone: (763) 514-3066
Customer No. 27581